

Remarks

In the referenced office action, the Examiner cover sheet indicated that claims 17-23 are allowed, however, a rejection was listed in the body of the office action. Clarification is requested.

The cover sheet and text of the office action also indicated that claims 15 and 16 were objected to, but a 103(a) rejection was also listed in office action. Clarification is again requested. But accordingly claims 15 and 16 have been amended above to include all of the limitations of claim 1 and be in independent form. Applicants believe that claims 15 and 16 are, therefore, now allowable.

Section 103 Rejections

The Examiner rejected claims 1-3 and 12 under section 103(a) as being unpatentable over Lille, 6,725,526 in view of Davis, et al. 6821626. Applicants respectfully disagree.

Applicants would first point out that the Examiner arguments appear to ignore the preamble of the claim which recites a "structure for applying photoresist to a surface of a workpiece." This preamble language is given substance in the elements of the claim which include a transfer layer with "a transferable coating of photoresist." To further clarify the structure, the amendment above adds that "the transferable coating of photoresist being transferable to the workpiece through physical contact." Thus, applicants' claim is to a structure designed for applying a photoresist to a surface of a workpiece by physical contact and the elements of the claim include the transferable coating of photoresist. Therefore, applicants submit that none of the references cited are appropriate because none of them teach a structure for applying photoresist to a surface of a workpiece.

10/814933

5 of 9

HSJ920040023US1

More specifically, applicants' claim 1 includes "a transfer layer of polydimethylsiloxane with a transferable coating of photoresist ... ; and a cushion layer consisting of rubber under the transfer layer" It is respectfully submitted that the Examiner has erroneously equated applicants' claimed transfer layer with Lille's PDMS mold layer. The only similarity is that each is made of PDMS. The applicants' transfer layer has a transferable coating of photoresist, which is absent in Lille. The Examiner has failed to cite any teaching in Lille or the other references for this combination. The Examiner has noted that Lille teaches application of a "resin-polymer layer (16)," but equating Lille's resin-polymer film to applicants' claimed photoresist film is not supportable. If the Examiner has personal knowledge that establishes this asserted equivalence, an Examiner's affidavit is hereby requested. Otherwise, the Examiner is respectfully requested to cite a reference for this equivalence.

Applicants respectfully submit that Lille's device does not have a transferable coating of photoresist that is transferable to a workpiece by physical contact, and Lille's device cannot be used in the way that applicants' device can be used, i.e. for applying photoresist to a surface of a workpiece. Lille is, therefore, non-analogous art.

As the Examiner noted Lille's teaching does not include applicants' claimed a cushion layer of rubber. Dependent claim 3 adds that the cushion layer is silicone rubber. For a cushion layer, the Examiner cites Davis, et al. 6821626 "Fluorocarbon random copolymer for use in toner release layer." Davis is clearly non-analogous art in relation to Lille which deals with a "Method of forming microsuspension assemblies for direct access storage devices." Therefore, the applicants submit that there is no motivation for one of ordinary skill in the art to look to either Lille or Davis for a solution to the problem of photoresist transfer that is addressed by applicants' claims. Davis' cushion layer is not used as part of structure for transferring a photoresist to a workpiece and is, therefore, inapplicable. Even if one attempts to combine Lille or Davis, the applicants' structure cannot be obtained.

The office action also rejects claims 11 and 13-16 under section 103(a) as being unpatentable over Lille, 6,725,526 in view of Davis, et al. 6,821,626 further in view of Drake 6,200,882. Applicants respectfully disagree. (Applicants note also that on the cover sheet and on page 7 the Examiner seems to indicate that claims 15 and 16 are simply objected to and not rejected.) Applicants respectfully disagree with the rejection. Drake teaches a "Method for processing a plurality of micro-machined mirror assemblies" and is again non-analogous art in relation to Lille, Davis and the applicants' claims because Drake does not teach a structure for transferring a photoresist to a workpiece. Drake is describing a method for processing a plurality of mirror assemblies formed from a silicon wafer.

Planar base 301 has a first or substrate layer 311 which serves as the rigid support for the laminar structure of mirror assembly 200. Substrate 311, as shown most clearly in FIG. 7, has the shape of a parallelepiped. Substrate 311 has a length and width which define the length and width of mirror assembly 200 and has a thickness ranging from 75 to 600 microns and preferably approximately 175 microns. The relatively thick substrate has opposite top and bottom planar surfaces 312 and 313 and can be formed from any suitable material such as silicon, quartz and other relatively high-temperature glasses. In a preferred embodiment, substrate 311 is formed from N-type silicon in wafer form. Drake col. 9, lines 17-28.

The Examiner relies on Drake for a teaching of the thickness of the stiffener and transfer layers. But applicants respectfully submit that Drake does not teach stiffener and transfer layers as applicants' claim and, therefore, any teachings in Drake that relate to thicknesses of non-analogous layers are inapplicable. Applicants claims contain various numerical limitations for which the Examiner cites Drake, but these citations fail because the numerical limitations are for non-analogous elements.

Applicants respectfully submit that the Examiner's has improperly used applicants' claims and specification as a guide to assemble teachings from unrelated references. Given all of the references, one of ordinary skill in the art in the art of applying photoresist to workpieces would not be led to assemble applicants' claimed structure of a transfer layer of polydimethylsiloxane with a transferable coating of photoresist and a cushion layer consisting of rubber under the transfer layer.

The cover sheet to the office action indicates that claims 17-23 are allowed; however, the office action also rejects claims 17-23 under section 103(a) as being unpatentable over Otsuka, et al. 2003/0197978. The body of the rejection also references Bietsch 2005/0191582. Applicants' independent claim 17 is for a "structure for applying photoresist to a surface of a workpiece" and as argued above, applicants first assert that the cited reference does not teach such a structure and is, therefore, not relevant art. Claim 17 includes a cover-tape, at least two photoresist transfer pads attached to the cover-tape, and a cushion layer. Because Otsuka's teaching is not related to applicants' claimed structure is respectfully submitted that the Examiner has equated non-analogous elements in Otsuka to applicants' claimed elements. First, the Examiner equated the cover-tape to a carbon film on a wafer. It is respectfully submitted that the term "cover-tape" as used in applicants' claims and as understood by one of ordinary skill in the art cannot be read on a carbon film on a silicon wafer.

The Examiner noted that Otsuka does not teach the polymer layer with a transferable coating of photoresist nor a cushion layer. The Examiner then cited Bietsch for PDMS or silicone rubber in resist compositions. Bietsch describes a mechanically releasable slider process that utilizes silicone rubber or PDMS to take the function of a planarization material for individual sliders or slider rows. Bietsch's invention uses PDMS as planarization and bonding material of individual sliders or slider rows. (see paragraph 0023.) Applicants respectfully disagree that Bietsch adds the elements that the Examiner admitted are missing from Otsuka.

10/814933

8 of 9

HSJ920040023US1

Neither Otsuka nor Bietsch teach the claimed cover-tape with at least two photoresist transfer pads attached to the cover-tape. Claim 17 further includes that the photoresist transfer pads comprise a polymer layer with a transferable coating of photoresist and a cushion layer under the polymer layer opposite the transferable coating of photoresist.

Dependent claim 18 adds that the polymer layer consists of polydimethylsiloxane. Dependent claim 21 adds that the cushion layer consists of silicone rubber. Each of these claims further distinguishes over the references.

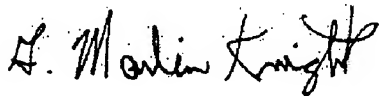
Dependent claim 22 the cover-tape and photoresist pads are formed into a roll. Dependent claim 23 recites that the photoresist pads are sequentially disposed on the cover-tape so that unrolling the roll sequentially exposes the photoresist pads. Dependent claims 22 and 23 emphasize that the cover-tape cannot be equated to a carbon film on a wafer. The carbon film on wafer cannot be rolled up as claimed.

None of the cited references have any comparable teaching to applicants' invention that includes a cover-tape with a plurality of photoresist transfer pads.

Conclusion

Applicants respectfully submit that the Examiner has failed to make a prima facie case of obviousness based on the cited references. Applicants, therefore, believe that all of the claims in application are now allowable.

Respectfully submitted,



G. Marlin Knight (Reg. Number 33,409)
(customer no. 000041482)
PO Box 1320, Pioneer, CA 95666
209-295-1982.

10/814933

9 of 9

HSJ920040023US1